WE CLAIM:

1. A lithographic projection apparatus comprising:

a radiation table which provides a projection beam of radiation;

projection beam patterning structure which patterns the projection beam according to a desired pattern;

a substrate table for holding a substrate;

a projection system which images the patterned beam onto a target portion of the substrate;

at least one voice coil motor operatively associated with at least one of the projection beam patterning structure and the substrate table to position the same, said at least one voice coil motor having a coil in thermal contact with a cooling jacket;

a plurality of channels being arranged such as to be substantially located in a portion of the cooling jacket adjacent to the coil; and

a cooling system connected to the cooling jacket for flowing a fluid at a predetermined temperature between the cooling jacket and the channels of the cooling system;

wherein the cooling jacket has a monolithic construction;

wherein the cooling jacket has a substantially planar body with a thermally conductive surface and a thermally non-conductive surface located opposite the thermally conductive surface;

wherein the thermally conductive portion of the cooling jacket is attached to a top and a bottom of the coil; and

wherein the cooling jacket is made from an electrically non-conductive material.